

Claims

[c1] A method for comparing a plurality of available travel plans and ranking each plan in said plurality according to the similarity of its origin and destination to those of a desired travel plan, comprising:

quantitatively characterizing said travel plans' origins and destinations, calculating a scalar origin difference as the absolute magnitude of the distance between said desired origin and each available origin in said multitude,

calculating a scalar destination difference as the absolute magnitude of the distance between said desired destination and each available destination in said multitude,

calculating a rank of the similarity between said desired plan and each plan of said plurality as the sum of said origin difference and said destination difference respectively,

whereby plans comprising quantitative origins and destinations anywhere in the world can be compared and ranked, and

whereby the similarity of non-identical but closely approximate plans is recognized, and

whereby the similarity of nearby origins and destinations is recognized regardless of any dissimilarity of names, and

whereby said plurality of plans can be rapidly and automatically compared and ranked.

[c2] The method of c1 wherein quantitative characterizations of some origins and destinations are not readily available, comprising:

determining the associated zone codes in a pre-existing geographic zone system selected from the group consisting of postal zone and telephone area code systems, of said origins and destinations for which a quantitative characterization is lacking,

quantitatively characterizing said origins and destinations as approximately equal to the quantitative location of each

respective zone, and

continuing with the method of c1 beginning at the second step.
whereby specification of said associated zones suffices to enable automatic
calculation of said rank.

[c3]

A method for comparing a plurality of available travel plans and ranking each
plan in said plurality according to its similarity to a desired travel plan,
comprising:

quantitatively characterizing said travel plans' origins and destinations,
quantitatively characterizing said travel plans' times,
calculating a scalar origin difference as the absolute magnitude of the
distance between said desired origin and each available origin in said
multitude,
calculating a scalar destination difference as the absolute magnitude
of the distance between said desired destination and each available
destination in said multitude,
calculating a scalar time difference as the absolute magnitude of the
difference between said desired travel time and each available travel
time in said multitude,
converting each said scalar time difference into an equivalent scalar
meeting distance by applying a predefined numerical conversion
factor, and
calculating a rank of the similarity between said desired plan and each
plan of said plurality as a mathematical combination selected from the
group consisting of the sum and the root mean square of said origin
difference, said destination difference, and said meeting distance
respectively,

whereby the conversion of origin differences, destination differences, and
time differences to identical dimensional units makes possible direct
quantitative comparison of travel plans, and

whereby said rank is a valid measure of the similarity between two plans as a
result of being proportional to said origin difference, said destination

difference, and said time difference; and
whereby said plurality of geographically and temporally dispersed travel plans can be rapidly and automatically compared and ranked.

[c4] The method of claim 3) wherein further travel plan and traveler compatibility criteria may be stipulated and implemented, comprising:

posting to said database in predefined coded and Boolean formats, such further criteria characterizing the Posting traveler and his or her travel plans as said Posting traveler desires, soliciting in said predefined coded and Boolean formats, such further criteria characterizing the Browsing traveler and his or her travel plans as said Browsing traveler desires, preselecting from said database those plans that are logically compatible with said Browsing traveler's further criteria and said Posting traveler's further criteria, and comparing and ranking said preselected plans according to the methods of claim 3) ,

whereby travel plan types can be dynamically selected from a group consisting of single rides, repetitive commuting rides, assemblages of travelers to a single destination, cargo shipment, and vehicle delivery; and whereby vehicle types can be dynamically selected from a list including automobiles, motorcycles, bicycles, airplanes, and boats; and whereby travel purposes can be dynamically selected from a list including cost sharing, drive-chore sharing, environmental impact minimization, recreation, and companionship; and whereby further new comparison and ranking methods can be devised and implemented sharing the same database by adding further criteria using predefined coded and Boolean formats.

[c5] A method for enabling contact among travelers with similar travel plans, comprising:

soliciting available travel plans from a multitude of Posting travelers,

quantitatively characterizing each of said travel available plans' origins, destinations, and times,
posting said quantitatively characterized available plans to a database,
further soliciting from each said Posting traveler and posting to said database, sufficient contact information to establish communications with said Posting traveler,
further soliciting from each said Posting traveler and posting to said database such descriptive information characterizing the Posting traveler and his or her travel plans as said Posting traveler desires
soliciting a desired travel plan from a Browsing traveler,
quantitatively characterizing the origin, destination, and time of said desired travel plan,
calculating a scalar origin difference as the absolute magnitude of the distance between said desired origin and each said available origin in said database,
calculating a scalar destination difference as the absolute magnitude of the distance between said desired destination and each said available destination in said database,
calculating a scalar time difference as the absolute magnitude of the difference between said said desired travel time and each said available travel time in said database,
converting each said scalar time difference into an equivalent scalar meeting distance by applying a predefined numerical conversion factor,
calculating a rank of the similarity between said desired plan and each of said available plans as a mathematical combination selected from the group consisting of the sum and the root mean square of said origin difference, said destination difference, and said meeting distance respectively,
ordering said available plans from said database according to

said rank,
presenting said ranked plans together with said respective descriptions to the Browsing traveler,
enabling the Browsing traveler to choose a plan from said presented plans, and
presenting to the Browsing traveler said contact information sufficient to establish communication with the Posting traveler associated with said chosen plan,

whereby travelers with similar travel plans can discover each other, and
whereby Browsing travelers can automatically and quickly scan a multitude of travel plans, and

whereby Browsing travelers can spontaneously implement *ad-hoc* choice criteria while reviewing said descriptive information as part of the manual final choice process, and

whereby Browsing travelers can exercise explicit control over said final choice.

[c6]

A method for calculating a scalar quantitative rank of the similarity between two travel plans, comprising:

determining the origins and destinations of each of said plans on a map,
calculating a scalar origin difference as the absolute magnitude of the travel distance measured on said map between said origins,
calculating a scalar destination difference as the absolute magnitude of the travel distance measured on said map between said destinations,
calculating a scalar time difference as the absolute magnitude of the difference between the times of said travel plans,
converting said time difference into an equivalent scalar meeting distance by applying a predefined numerical conversion factor, and
calculating said rank as a mathematical combination selected from the group consisting of the sum and the root mean square of said origin

difference, said destination difference, and said meeting distance, whereby the conversion of origin differences, destination differences, and time differences to identical dimensional units makes possible direct quantitative comparison of travel plans, and whereby said rank is a valid measure of the similarity between two plans as a result of being proportional to said origin difference, said destination difference, and said time difference; and whereby said rank can be rapidly and automatically calculated for any pairs of plans within the scope of available maps.

[c7]

The method of claim 6) wherein further travel plan and traveler compatibility criteria may be stipulated and implemented, comprising:

posting to said database in predefined coded and Boolean formats, such further criteria characterizing the Posting traveler and his or her travel plans as said Posting traveler desires
soliciting in said predefined coded and Boolean formats, such further criteria characterizing the Browsing traveler and his or her travel plans as said Browsing traveler desires
preselecting from said database those plans that are logically compatible with said Browsing traveler's further criteria and said Posting traveler's further criteria, and
comparing and ranking said preselected plans according to the methods of claim 6) ,

whereby travel plan types can be dynamically selected from a group consisting of single rides, repetitive commuting rides, assemblages of travelers to a single destination cargo shipment, and vehicle delivery; and whereby vehicle types can be dynamically selected from a list including automobiles, motorcycles, bicycles, airplanes, and boats; and whereby travel purposes can be dynamically selected from a list including cost sharing, drive-chore sharing, environmental impact minimization, recreation, and companionship; and whereby further new comparison and ranking methods can be devised and

implemented sharing the same database by adding further criteria using predefined coded and Boolean formats.

[c8]

A method for enabling contact among travelers with similar travel plans, comprising:

soliciting available travel plans from a plurality of Posting travelers,
determining the coordinates of the origins and destinations of each of said plans on a geographical map
posting said available plans including the travel times and said coordinates to a database,
further soliciting from each said Posting traveler and posting to said database, sufficient contact information to establish communications with said Posting traveler,
further soliciting from each said Posting traveler and posting to said database such descriptive information characterizing the Posting traveler and his or her travel plans as said Posting traveler desires
soliciting a desired travel plan from a Browsing traveler,
determining the coordinates of the origins and destinations of said desired plan on a map
quantitatively characterizing the time of said desired travel plan,
calculating a scalar origin difference as the absolute magnitude of the distance measured on said map between said desired origin and each said available origin in said database,
calculating a scalar destination difference as the absolute magnitude of the distance measured on said map between said desired destination and each said available destination in said database,
calculating a scalar time difference as the absolute magnitude of the difference between said said desired travel time and each said available travel time in said database,
converting each said scalar time difference into an equivalent scalar meeting distance by applying a predefined numerical conversion factor,

calculating a rank of the similarity between said desired plan and each of said available plans as a combination selected from the group consisting of the sum and the root mean square of said origin difference, said destination difference, and said meeting distance respectively,

ordering said available plans from said database according to said rank,

presenting said ranked plans together with said respective descriptions to the Browsing traveler, and

enabling the Browsing traveler to choose a plan from said presented plans, and

presenting to the Browsing traveler said contact information sufficient to establish communication with the Posting traveler associated with said chosen plan,

whereby travelers with similar travel plans can discover each other, and

whereby Browsing travelers can automatically and quickly scan a multitude of travel plans, and

whereby Browsing travelers can spontaneously implement *ad-hoc* choice criteria while reviewing said descriptive information as part of the manual final choice process, and

whereby Browsing travelers can exercise explicit control over said final choice.